
Application No.: 10/797,892Case No.: 59473US002

Remarks

Claims 1-20 are pending. Applicant respectfully requests reconsideration of claims 1-20 in view of the following remarks.

I. Claims 1-3, 10-13, 16, 18, and 20 are Novel in view of Benner et al.

Claims 1-3, 10-13, 16, 18, and 20 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Benner et al. (U.S. Pat. No. 6,508,697). Applicant respectfully requests reconsideration of this rejection because Benner et al. do not describe, teach, or suggest a pad conditioner that includes an abrasive disk and an undulating disk that form an undulated abrasive layer.

Benner et al. report a pad conditioning system that includes a pad conditioning apparatus, process fluids, vacuum capability to pull waste material out of the conditioning pad, self-contained flushing means, and a piezo-electric device for vibrating the pad conditioning abrasive (col. 4, lines 26-31). As shown in FIGS. 7 and 8, an abrasive disk 36 is affixed to a magnetic disk 35, which is affixed to a support disk 34, which in turn is affixed to the blades 33 of impeller disk 39 (col. 6, line 56 to col. 7, line 4). "The support disk is secured in place with screws to the impeller and provides firm backing for the magnetic disk ... and abrasive disk" (col. 5, lines 19-21, emphasis added).

The Office Action alleges that the impeller disk 39 reported by Beller et al. is comparable to the undulating disk of the present claims. As best understood, blades 33 of the impeller disk 39 are alleged to form the raised portions of the undulating disk, and the recessed portions reside on the impeller disk in the areas between the blades 33. That is, in reference to FIG. 8 of Beller et al., screw attachment holes 41 are located at the alleged raised portion and outlets 38 are located at the alleged recessed portion.

As recited in claim 1 of the present invention, the abrasive disk is releasably affixed to at least a portion of a recessed portion of an undulating disk. The abrasive disk 36 reported by Beller et al. is not affixed to the alleged recessed portion of impeller disk 39. Rather, abrasive disk 36 is affixed to magnetic disk 35. Magnetic disk 35, in turn, is affixed to support disk 34, which is affixed to the alleged raised portions of impeller disk 39. Even assuming, *arguendo*,

Application No.: 10/797,892Case No.: 59473US002

that magnetic disk 35 or support disk 34 could somehow be considered part of the abrasive disk (which they cannot), there is simply no teaching or suggestion from Beller et al. to affix any part of any of the reported disks to the alleged recessed portion of impeller disk 39. For at least this reason, claim 1 and its depended claims 2, 3, and 10-13, are patentable over Beller et al.

Further, there is no teaching or suggestion from Beller et al. to form an undulated abrasive layer. Rather, Beller et al. report that support disk 34 provides a "firm backing" for magnetic disk 35 and abrasive disk 36 (col. 5, lines 19-21). The use of a support disk 34 that provides a firm backing would create a pad conditioning system wherein the abrasive disk 36 remains flat. Further, the purpose of providing the blades 33 (i.e., alleged raised portions) on impeller disk 39 is to promote fluid movement (see, e.g., col. 4, lines 57-61), not to form an undulating disk. There is simply no teaching or suggestion to form an abrasive disk 34 having an undulated abrasive layer. Accordingly, the rejection of claim 16, and its dependent claims 18, and 20 should be withdrawn.

For at least these reasons, the rejection of claims 1-3, 10-13, 16, 18, and 20 under 35 U.S.C. § 102(b) as allegedly being anticipated by Benner et al. should be withdrawn.

II. Claims 14, 15, and 17 are Not Obvious in view of Benner et al.

Claims 14, 15, and 17 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Benner et al. Applicant traverses the rejection and requests reconsideration because Benner does not teach or suggest all of the elements recited in the pending claims.

As discussed above, claim 1 is patentable over the teachings of Benner et al. Claims 14 and 15 depend from claim 1. For at least this reason, the rejection of claims 14 and 15 should be withdrawn.

As discussed above, claim 16 is patentable over the teachings of Benner et al. Claim 17 depends from claim 16. For at least this reason, the rejection of claim 17 should be withdrawn.

III. Allowable Subject Matter

Applicant notes with appreciation the indication of allowable subject matter in claims 4-9 and 19. The objections of claims 4-9 and 19 for being dependent upon rejected base claims should be withdrawn in view of the above remarks.

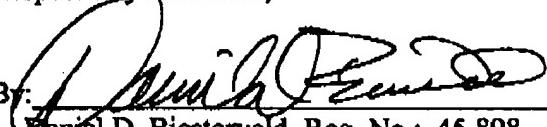
Application No.: 10/797,892

Case No.: 59473US002

III. Conclusion

In view of the above, it is submitted that the application is in condition for allowance. The Examiner is requested to contact Applicant's undersigned representative with any questions concerning this application.

Respectfully submitted,

By: 
Daniel D. Biesterveld, Reg. No.: 45,898
Telephone No.: (651) 737-3193

February 21, 2005

Date

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833